AMENDMENT

In the Claims:

Please rewrite claims 1, 3, 4, 6, 8, and 10 -13 as follows. Marked-up copies of the rewritten claims are attached pursuant to 37 CFR 1.121(c).

1. (Thrice rewritten) A fluid flow control system for an electromagnetic pump, the control system comprising:

an electromagnetic drive within a compressor, wherein the control system supplies a pulse width modulated drive signal defining an alternating current (ac) waveform to the electromagnetic drive so as to provide a predetermined pump flow rate, and wherein the drive signal is generated by a dc voltage supply.

3. (Twice rewritten) The fluid flow control system of claim 1, wherein the electromagnetic drive includes at least one stator of magnetic material, at least one excitation winding for magnetically exciting the at least one stator, and a movable magnetic member connected to an actuator of the compressor.

4. (Twice rewritten) A fluid flow control system for an electromagnetic pump, the control system comprising:

an electromagnetic drive within a compressor, wherein the control system supplies a pulse width modulated drive signal to the electromagnetic drive so as to provide a predetermined pump flow rate, wherein the drive signal is generated by a dc voltage supply; and at least one diaphragm, wherein the electromagnetic drive is

operatively associated with the at least one diaphragm to provide conversion of electrical energy to fluid flow.

6. (Twice rewritten) A fluid flow control system for an electromagnetic pump, the control system comprising:

an electromagnetic drive within a compressor, wherein the control system supplies a pulse width modulated drive signal to the electromagnetic drive so as to provide a predetermined pump flow rate, wherein the drive signal is generated by a dc voltage supply, wherein the drive signal includes a mark-space ratio, and wherein the mark-space ratio of the drive signal defines over time an approximate half sine wave current waveform.

8. (Thrice rewritten) A fluid flow control system for an electromagnetic pump, the control system comprising;

an electromagnetic drive within a compressor, wherein the control system supplies a pulse width modulated low voltage drive signal of substantially fixed amplitude to the electromagnetic drive, wherein the electromagnetic drive includes coils having alternating current, and wherein the pulse width modulated low voltage drive signal controls amplitude and repetition rate of the alternating current in the coils of the electromagnetic drive to drive an actuator of the compressor in order to generate a desired flow rate output from the compressor.

10. (Twice rewritten) The fluid flow control system of claim 9, wherein the at least one sensor provides feedback to the command processor regarding instantaneous coil current.

11. (Twice rewritten) The fluid flow control system of claim 9, wherein the at least one sensor provides feedback to the command processor regarding actuator displacement.

12. (Twice rewritten) The fluid flow control system of claim 9, wherein the at least one sensor provides feedback to the command processor regarding bladder system pressure.

13. (Twice rewritten) The fluid flow control system of claim 9, wherein the at least one sensor provides feedback to the command processor regarding bladder system fluid flow.

REMARKS

Claims 1-13 are pending in the application. Claim 9 is allowed, and claims 4 and 6 are indicated to be allowable if rewritten to include the limitations of their base claims and to overcome rejections under 35 USC § 112. Claims 1 - 8 and 10 - 13 are rejected under 35 USC §§ 102 and 112. Claims 1, 3, 4, 6, 8, and 10 – 13 are hereby rewritten.

Amendment of claims 4 and 6 results in the presentation of 5 independent claims. Attached hereto is a fee transmittal authorizing payment of two extra independent claim fees ($84.00 each, total $168.00) from Deposit Account 02-4270. The Commissioner is further authorized to charge any deficiency or credit any overpayment in the payment of such fee to Deposit Account No. 02-4270.